

ABSTRACT AND BIOGRAPHY

Architecting the Next Crewed Missions to the Moon

This talk will address the importance, complexity and insights into how the Constellation program's transportation and surface systems are architected for returning humans to the moon for long duration. The presentation will cover the overall architecture and how it was developed and validated. Specific aspects of the art and science of the architecting process will be featured.

Brian Muirhead

Program Systems Engineer, Constellation Program
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- Currently the Program Systems Engineer (also known as Chief Architect) of NASA's Constellation project at JSC
- He has worked on numerous spacecraft and technology projects since coming to JPL in 1978,
 - Project Manager, Mars Pathfinder Mission. Responsible for the design, development, test and launch of the Mars Pathfinder spacecraft.
 - Senior advisor to the Mars Exploration Rovers
 - Galileo mission to Jupiter
 - Earth-orbiting Spaceborne Imaging Radar (SIR-C).
 - Project manager of the Deep Impact mission through Critical Design Review,
 - Chief Engineer of the Mars Science Laboratory.
- Prior to current position was the Chief Engineer of JPL.
- MS in aeronautics from the California Institute of Technology in 1982
- BS in mechanical engineering from the University of New Mexico in 1977.
- Numerous awards include;
 - 1997 Laureate for Space by Aviation Week & Space Technology magazine.
 - Engineer of the Year for 1997 by Design News magazine
 - NASA's Outstanding Leadership Medal
- Author, High Velocity Leadership: The Mars Pathfinder Approach to Faster, Better, Cheaper
- Author, Going to Mars